

REMARKS

After entry of the present amendment, claims 1, 3 through 23 will be pending in the application with claims 1 and 15 written in independent form. Claims 2, and 24 through 28 have been cancelled.

Claim Rejections – 35 U.S.C. §101

Independent claims 15 and 24 stand rejected under 35 USC §101 as being directed towards non-statutory subject matter. This rejection is respectfully traversed. Applicant has cancelled the independent claim 24 and amended the independent claim 15 to more clearly define the subject matter regarded as the invention thereby rendering the Examiner's rejection moot. Specifically, the independent claim 15 has been amended to be directed towards an inventive method having the step of "integrating the first configuration and the second configuration thereby establishing a third configuration used to identify the part being evaluated from a controller programmed with the third configuration for directing subsequent work station to perform work relative to the identified part".

Since the independent claim 15 is directed towards something useful, i.e., installing the comparative program into the controller wherein the comparative program is adaptable to generate a three dimensional configuration of the part, such as, for example a tire or a wheel, respectively, with a tangible result, i.e., determining the three dimensional configuration of the part as the first signal and the second signal are integrated by the comparative program integrating the first configuration and the second configuration thereby establishing a third configuration of the part for directing subsequent work station to perform work relative to the identified part, such as soaping or mating the tire with the respective wheel, the Applicant respectfully asserts that independent claim 15 and dependent claims 16-23 represent statutory subject matter and request that the §101 rejection be withdrawn.

Claim Rejections – 35 U.S.C. §103

Claims 1 through 28 stand rejected under 35 U.S.C. §103 (a) as being unpatentable over the United States Patent No. 4,727,419 to Yamada et al. (the *Yamada reference*).

The Applicant has amended the independent claims 1 and 15 and cancelled the independent claim 24. In particular, claim 1 was amended to further define the invention as originally claimed. As amended, claim 1 recite the unique assembly for determining the

configuration of a part, such as a wheel or a tire, wherein the assembly includes a controller having a *comparative program* for integrating the first configuration and the second configuration *thereby establishing a third configuration* of the part used to identify the part being evaluated from *the controller programmed with said third configuration* for directing the subsequent work station to perform work relative to the identified part. The Applicant's invention is intended to solve the problem of identification of multiple tires and wheels of different dimensions and configuration moved along respective conveyor lines, which are currently experienced by automated assembly lines for mounted units.

Typically, these lines include at least one conveyor to accommodate various work-stations, including and not limited to a wheel, i.e. wheel loader assembly designed to position the wheel on a wheel plate operably connected to the conveyor, a wheel soaper assembly for applying a lubricant solution onto the edges of the wheel, wherein the wheel soaper assembly is attached to the wheel loader assembly. A tire soaper assembly for applying the lubricant around inner circumference of the tire before mounting the tire about the wheel to form the wheel is also provided at the assembly line.

The Applicant's inventive concept solves the problem by implementing a controller pre-programmed with inside diameters, outside diameters, and height of the various tire sizes being processed so that the controller identifies through a comparative software which tire is passing through the support mount and signals subsequent work stations, such as, for example the wheel soaper station and the wheel loader station, respectively, with the type of tire entering the assembly process. By signaling the subsequent work stations, the appropriate wheel are mated with each tire passing through the platform in the absence of the processing error that results in matching the correct wheel with the correct tire at a high speed. An advantage of the present inventive concept is to provide an assembly for and method of identifying the type of workpiece entering an assembly process by virtue of integrating two-dimensional signals for determining three-dimensional configuration of the tire to enable the rapid detection of the size and shape of the tire allowing an increase in the variety of tires being detected while maintaining high production volumes.

The Examiner indicates that the *Yamada reference* disclosed an apparatus for determining the configuration of a part as disclosed by the Applicant in the present application. Upon reviewing the *Yamada reference*, the Applicant believes that the apparatus of the *Yamada reference* presents a completely different invention designed to identify configuration of the tire through an information mark and an identification mark *thereby completely teaching away* from the Applicant's invention. In particular, the

apparatus taught by the *Yamada reference* includes *three* stages necessary to identify a tire (1) fed therethrough by a conveyor (2). At a first stage (3), width and inner diameter of the tire (1) are detected to derive a tire size signal. A second stage (4), a first optical head detects an identification mark formed on a side wall portion of tire (1). A third stage (5) includes a second optical head for detecting the tire information marks formed on the side wall portion of tire to derive a position signal.

The Examiner has previously referred to column 3, lines 33 through column 4, lines 1 through 8 through 44 of the *Yamada reference* asserting that the apparatus of the *Yamada reference* teaches a comparative program for determining three dimensional configuration of the tire (1) from the first and second configurations. The Applicant has reviewed column 3, lines 33 through 44 and *did not* find “a comparative program” of the controller for determining “three dimensional configuration” of the part from the first and second configurations, claimed in dependent claim 2 and incorporated by this amendment in independent claim 1.

The Examiner suggests that even if the *Yamada reference* is silent regarding “a comparative program” of the controller adaptable for determining the three dimensional configuration, it would have been obvious to one skilled in the art at the time of the invention to provide a programmable computer/controller to perform the function required by the Applicant’s invention.

As the Examiner is likely aware, to establish a *prima facie* case of obviousness over *a single reference*, a motivation must be found within the prior to make the proposed modification. “The motivation to modify the prior art must flow from some teaching in the art that suggests the desirability or incentive to make the modification needed to arrive at the claimed invention.” *Alza Corp. v. Mylan Laboratories Inc.*, 391 F.3d 1365 (Fed. Cir. 2004). The apparatus of the *Yamada reference* teaches a multitude of components, which have to be operably communicated with one another to reach the goal of the apparatus of the *Yamada reference*. This multitude of components includes a controller (15) adaptable to control a camera head driver (14) in accordance with the tire size signal supplied from sensors (7) and (9) of the first stage (3) and a camera (13), connected to the camera head driver (14), is rotated in radial directions and about the tire axis (O) to scan optically the side wall portion (1B) of tire (1) along the circle (C) to detect identification mark (21). This multitude of components further includes a tire arrival detection sensor (16), a second camera head (17), a camera head driver (18) and a camera head driver controller (19). The second camera head (17) is rotatable about the axis of tire (1) in accordance with the position signal supplied from

the controller (19). The second camera head (17) comprises a two dimensional image sensor to scan the information mark (20), to generate an image signal and to convert the image signal into a *bivalent signal* by a circuit (22) to be stored in an image buffer memory (23) and later being read out and supplied to an image processing circuit (24). The image processing circuit (24) processes the image signal to produce a signal for classifying the tire (1). There is no motivation whatsoever to modify the teachings of the *Yamada reference* to teach a step of installing a comparative program adaptable to generate a three dimensional configuration of the part into the controller to determine the three dimensional configuration of the part as the first signal and the second signal are integrated by the comparative program and. Thus, the Applicants respectfully submit that the rejections over the *Yamada reference* are overcome with respect to independent claims 1 and 15.

Consideration of the application as amended during examination of the application is requested. If the Examiner believes that prosecution of the application can be expedited by way of an Examiner's amendment, the Examiner is invited to contact the Applicants' agent at the telephone number listed below. Although it is believed that no fee is due for the filing of this Amendment, the Commissioner is authorized to charge our Deposit Account No. 08-2789 for any additional fees or credit the account for any overpayments regarding this Amendment.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read 'M. Shariff', followed by a long horizontal line.

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